IN THE CLAIMS

Please amend the claims as follows:

1. (original) A device comprising at least one nanowire (1) with a surface (1a) and having optical properties, the surface (1a) being provided with at least one binding site (3) able to selectively bind a molecule (2, 4), and a photodetector (12) for detecting the optical properties of the nanowire (1) when the molecule (2, 4) selectively binds to the surface (1a) and for outputting a signal.

2. (original) A device according to claim 1, wherein the photodetector (12) is a phototransistor.

3. (currently amended) A device according to claim 1~~ or 2~~, wherein the molecule (2, 4) is a biomolecule.

4. (original) A device according to claim 3, wherein the biomolecule is a luminescent biomolecule, having a first luminescence spectrum.

5. (currently amended) A device according to ~~any of claims 1 to 4~~claim 1, wherein the at least one nanowire (1) has a second luminescence spectrum.

6. (original) A device according to claim 5, wherein the nanowire (1) is such that the first luminescence spectrum is different from the second luminescence spectrum.

7. (currently amended) A device according to ~~any of claims 1 to 6~~claim 1, wherein the at least one nanowire (1) furthermore comprises an activator ion.

8. (currently amended) A device according to ~~any of claims 1 to 3~~ claim 1, wherein the molecule (2, 4) is labelled with a dye (5).

9. (currently amended) A device according to ~~any of the previous claims~~claim 1, wherein the device comprises an array of nanowires (1).

10. (currently amended) A device according to ~~any of the previous claims~~claim 1, wherein at least a first nanowire (1) is modified with at least one first binding site (3), and at least a second nanowire (1) is modified with at least one second binding site (3),

the first and second binding sites (3) binding different molecules (2, 4) from each other.

11. (currently amended) A device according to ~~any of the previous claims~~claim 1, wherein at least two nanowires (1) have different sizes.

12. (currently amended) A device according to ~~any of the previous claims~~claim 1, wherein the at least one nanowire (1) is dispersed in a liquid to form a suspension.

13. (original) A device according to claim 12, wherein the suspension of the at least one nanowire (1) is drop-deposited onto a surface.

14. (currently amended) A device according to ~~any of claims 1 to 11~~claim 1, wherein the at least one nanowire (1) is grown onto a surface.

15. (currently amended) A device according to ~~any of claims 1 to 11~~claim 1, wherein the at least one nanowire (1) is grown into a porous matrix.

16. (currently amended) A device according to ~~any of the claims 1 to 15~~claim 1, wherein the device is a nanowire sensor for the detection of an analyte (2, 4), wherein the at least one binding site (3) is able to selectively bind an analyte (2, 4), wherein the optical properties of the nanowire (1) are used for analyte (2, 4) detection.

17. (original) A method for the detection of a molecule (2, 4), wherein the method uses optical properties of at least one nanowire (1), and wherein energy transfer between the molecule (2, 4) and the at least one nanowire (1), or vice versa, determines at least the presence of said molecule (2, 4).

18. (original) A method according to claim 17, wherein energy transfer occurs between a luminescent biomolecule (2), having a first luminescence spectrum, and said at least one nanowire (1), having a second luminescence spectrum, said first luminescence spectrum being different from said second luminescence spectrum.

19. (original) A method according to claim 18, wherein the luminescent biomolecule (2) is excited with light of an appropriate wavelength.

20. (original) A method according to claim 17, wherein energy transfer occurs between the at least one nanowire (1) having a luminescence and a dye (5) the molecule (2, 4) is labelled with, whereby the luminescence of the nanowire (1) is quenched.

21. (currently amended) A method according to ~~any of the claims 17 to 20~~claim 17, wherein the molecule (2,4) is an analyte and energy transfer between the analyte and the at least one nanowire (1), or vice versa, determines the presence and/or amount of said analyte (2, 4).